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CLAIMS

Process for the preparation of an alkynol with formula HC≡C-C(OH)-R²
 (formula 2) wherein R² represents methyl, halomethyl or ethyl, wherein the corresponding silyl-protected alkynol ester with formula 1

$$R^{2}$$

$$A_{3}Si$$

$$(1)$$

wherein R¹ represents H, an optionally substituted alkyl, an optionally substituted alkenyl or an optionally substituted (hetero)aryl group, R² is as defined above and A₃Si represents a trisubstituted silyl group wherein each A independently represents an optionally substituted alkyl or an optionally substituted (hetero)aryl group, in the presence of water and at least an equivalent amount of amine functionalities is converted into the alkynol with formula 2.

- Process according to claim 1 wherein the amount of water is between 0.5 and 3 equivalents calculated with respect to the amount of silyl-protected alkynol ester with formula 1.
 - 3. Process according to claim 1 or 2 wherein in addition a base is present.
- 4. Process according to claim 3, wherein the base is an (earth) alkali metal carbonate, an (earth) alkali metal bicarbonate or an (earth) alkali metal hydroxide.
 - 5. Process according to any one of claims 1-4, wherein the amount of amine is between 1 and 2 amine equivalents calculated with respect to the amount of silyl-protected alkynol ester with formula 1.
- 25 6. Process according to any one of claims 1-5, wherein R²=methyl.
 - 7. Process according to any one of claims 1-6, wherein subsequently the reaction mixture is subjected to at least one purification step of which at least one step is a distillation step.
- 8. Process according to claim 7, wherein the phase containing the alkynol with formula 2 which is subjected to distillation (i) contains less than 3 equivalents

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calculated with respect to the amount of alkynol with formula 2 of water and (ii) contains less than 10 mol% calculated with respect to the amount of alkynol with formula 2, of each component of which the difference in boiling point compared to the boiling point of the alkynol with formula 2 is less than 45 °C.

- 9. Process according to anyone of claims 1-8, wherein the silyl-protected alkynol ester with formula 1 is enantiomerically enriched.
 - 10. Process according to claim 9, wherein first the enantiomerically enriched silyl-protected alkynol ester with formula 1 is prepared via enzymatic resolution of the mixture of enantiomers of the corresponding silyl-protected alkynol with formula 7,

$$R^2$$

$$A_3Si$$
(7)

followed by isolation of the enantiomerically enriched silyl-protected alkynol ester with formula 1.

11. Process according to claim 10, wherein the enzymatic resolution is performed via stereoselective acylation followed by conversion of the remaining enantiomerically enriched enantiomer of the silyl-protected alkynol ester with formula 1 to a high boiling or water soluble compound.